IN THE CLAIMS

Please amend the claims as follows:

--1. (Amended) A non-invasive electro-optical sensor for removable adhesive attachment to a fingertip of a patient for use in measuring light extinction during transillumination of the blood-profused tissue within said fingertip, said sensor comprising:

an opaque, semi-cylindrical, substantially rigid cradle member having a concave surface, a convex surface and a diameter larger than the diameter of a human fingertip;

a flexible, initially substantially planar web-like support structure attached at one end thereof to said cradle member;

a photosensor mounted on said concave surface of said cradle member;

a light source mounted in said web of said support structure, said light source having a light-emitting surface which directly overlies said photosensor when said support structure is wrapped around a human fingertip within said cradle member; and

an adhesive layer on said concave surface of said cradle member and/or on a surface of the web-like support structure for removably adhesively securing said concave surface of said cradle member to a fleshy portion of a human fingertip such that said concave surface is held in conformance with said human fingertip without stressing said human fingertip.--

2. (Unchanged) The non-invasive electro-optical sensor according to Claim 1 further including means for securing said support structure in a wrapped position around a human fingertip within said cradle member such that said light source directly overlies said photosensor.

3. (Unchanged) The non-invasive electro-optical sensor according to Claim 1 wherein said opaque, semi-cylindrical, substantially rigid cradle member is constructed of molded polyolefin plastic.

4. (Unchanged) The non-invasive electro-optical sensor according to Claim 3 wherein said opaque, semi-cylindrical, substantially rigid cradle member is constructed of polypropylene.

5. (Unchanged) The non-invasive electro-optical sensor according to Claim 1 further including a recess within said concave surface of said cradle member for receiving said photosensor.

6. (Unchanged) The non-invasive electro-optical sensor according to Claim 1 further including an electrical conductor channel formed within said concave surface of said cradle member.

7. (Unchanged) The non-invasive electro-optical sensor according to Claim 1 wherein said support structure is attached at one end thereof to a circumferential portion of said opaque, semi-cylindrical, substantially cradle member such that said support structure can be wrapped around a circumference of said cradle member.

8. (Unchanged) The non-invasive electro-optical sensor according to Claim 1 wherein said support structure is attached at one end thereof to an end portion of said opaque, semi-cylindrical, substantially cradle member such that said support structure can be wrapped around an axis of said cradle member.

9. (Unchanged) The non-invasive electro-optical sensor according to Claim 1 wherein said adhesive layer comprises a separate double-sided adhesive layer applied to said concave surface of said cradle member.

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--10. (Amended) A non-invasive electro-optical sensor for removable adhesive attachment to a fingertip of a patient for use in measuring light extinction during transillumination of the blood-profused tissue within said fingertip, said sensor comprising:

an opaque, semi-cylindrical, substantially rigid cradle member having a concave surface, a convex surface and a diameter larger than the diameter of a human fingertip;

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a flexible, initially substantially planar web-like support structure attached at one end thereof to said cradle member;

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a light source mounted on said concave surface of said cradle member;

a photosensor mounted in said web of said support structure, said photosensor having a photo-sensitive surface which directly overlies said light source when said support structure is wrapped around a human fingertip within said cradle member; and

an adhesive layer on said concave surface of said cradle member and/or on a surface of the web-like support structure for removably adhesively securing said concave surface of said cradle member to a fleshy portion of a human fingertip such that said concave surface is held in conformance with said human fingertip without stressing said human fingertip.--

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11. (Unchanged) The non-invasive electro-optical sensor according to Claim 10 further including means for securing said support structure in a wrapped position around a human fingertip within said cradle member such that said light source directly overlies said photosensor.

12. (Unchanged) The non-invasive electro-optical sensor according to Claim 10 wherein said opaque, semi-cylindrical, substantially rigid cradle member is constructed of molded polyolefin plastic.

13. (Unchanged) The non-invasive electro-optical sensor according to Claim 12 wherein said opaque, semi-cylindrical, substantially rigid cradle member is constructed of polypropylene.

14. (Unchanged) The non-invasive electro-optical sensor according to Claim 10 further including a recess within said concave surface of said cradle member for receiving said light source.

15. (Unchanged) The non-invasive electro-optical sensor according to Claim 10 further including an electrical conductor channel formed within said concave surface of said cradle member.

16. (Unchanged) The non-invasive electro-optical sensor according to Claim 10 wherein said support structure is attached at one end thereof to a circumferential portion of said opaque, semi-cylindrical, substantially cradle member such that said support structure can be wrapped around a circumference of said cradle member.

17. (Unchanged) The non-invasive electro-optical sensor according to Claim 10 wherein said support structure is attached at one end thereof to an end portion of said opaque, semi-cylindrical, substantially cradle member such that said support structure can be wrapped around an axis of said cradle member.

18. (Unchanged) The non-invasive electro-optical sensor according to Claim 10 wherein said adhesive layer comprises a separate double-sided adhesive layer applied to said concave surface of said cradle member.